

Department of the Air Force PFAS Snapshot

Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic fluorinated chemicals. Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) are two organic chemicals within the PFAS group that were used in industrial and consumer products such as nonstick cookware, stain-resistant fabric and carpet, some food packaging and specialized foam. PFOS and PFOA are the only two compounds of the PFAS group with established Environmental Protection Agency health advisories for drinking water.

In 1970, the Department of the Air Force (DAF) began using the firefighting agent Aqueous Film Forming Foam (AFFF) which contained PFOS and PFOA. AFFF is the most efficient extinguishing method for petroleum-based fires and is widely used across the firefighting industry, to include all commercial airports, to protect people and property. On May 19, 2016, the EPA established a lifetime Health Advisory or HA level of 70 parts per trillion for PFOS and/or PFOA in drinking water. The EPA HAs are non-regulatory and not enforceable; however, under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), DAF uses it to determine an action level for PFOS/PFOA in drinking water. The illustration depicts DAF progress through the CERCLA process.

IDENTIFY

204 Installations Require Preliminary Assessments (PAs)*

99% of PAs Complete

Of those 204, 191 Installations Planning a Site Inspection (SI)

67% of SIs Complete

BRAC: 30 of 30 SIs complete
ACTIVE/Reserve: 37 of 86 SIs complete
ANG: 61 of 75 SIs complete

Of those, 189 Installations Planning a Remedial Investigation (RI)

42% of RIs Initiated

BRAC: 12 RIs awarded: 1(FY19) 4(FY20) 7(FY21)
ACTIVE/Reserve: 53 RIs awarded: 1(FY19) 29(FY20) 18(FY21) 5(FY22)
ANG: 15 RIs awarded: 1(FY15) 1(FY19) 10(FY20) 3(FY21)

*JB Anacostia-Bolling transferred from Navy to AF Active/Reserve; still in the PA phase

39 BRAC
90 Active/Reserve
75 ANG
30 BRAC
86 Active/Reserve
75 ANG
30 BRAC
85 Active/Reserve
74 ANG

RESPOND

38

Installations

Air Force Drinking Water Response Actions:

- Bottled water
- Point-of-use filtration
- Whole-house filtration
- Municipal Water Supply hookup
- Municipal Water Treatment
- New well drilling

BRAC

Castle
K.I. Sawyer
March
Mather
Pease
Plattsburgh
Reese
Wurtsmith

ACTIVE/RESERVE

Cannon
Dover
Eielson
Ellsworth
Fairchild
Goodfellow
Homestead
Hurlburt Field
JBER-Fort Yukon
JBMDL
JBSA Randolph
Little Rock
Luke
McConnell
Mountain Home
New Boston
Peterson
Scott
Shaw
Tinker
Travis
Wright-Patterson

ANG

Barnes
Biddle (formerly Horsham)
Gabreski
Martinsburg
Montana
Morris
Otis/JB Cape Cod
Toledo

PREVENT

176/176

Installations transitioned to new C6 AFFF in stockpiles and fire trucks

\$5.3M

Cost for ecologic system kits for fire vehicles

100%

Installations finished retrofitting vehicles with ecologic system kits

979,000

Gallons of legacy AFFF disposed

\$10.8M

Cost to date to replace and dispose of legacy AFFF in stockpiles and fire trucks

\$974M

total force expenditures

PFAS Actions to Date

investigations | response actions | prevention



Installations Status Update

Active/Reserve Installations

Cannon AFB, NM: 3 off-base drinking water sources above EPA HA; BWP, FSI at 3. Engineering Evaluation/Cost Analysis – Pilot Study Project began May ‘21

Dover AFB, DE: 9 off-base private wells above EPA HA; 9 FSI, sampling ECD July ‘23

Eielson AFB, AK: GAC system installed at on-base water treatment plant; AF signed interim ROD to connect residents to municipal water. 91% of properties connected to municipal water in ‘21; the remaining connections will occur in ‘22

Ellsworth AFB, SD: 23 off-base residential wells above EPA HA; 1 well connected to base water supply, 3 wells connected to city water; FSI at 15 wells, 1 ion exchange system installed at a mobile home park, BWP to 3 residences, sampling completed

Fairchild AFB, WA: 2 municipal wells above EPA HA; FSI and 1 well in non-active. 101 off-base residential wells above EPA HA; 84 FSI, 7 residences connected to city water, BWP to 13 residences

Goodfellow AFB, TX: 26 residential wells above EPA HA, BWP, POETS installation in-progress

Homestead ARB, FL: 4 off-base private wells above EPA HA; BWP; POETS installation at 3 of the 4 wells in-process; 4th well sampled below EPA HA; pending validation.

Hurlburt Field, FL: 2 wells above EPA HA; BWP, sampling ECD Jan ‘22

JBER-Fort Yukon LRRS, AK: 1 on-base well above EPA HA, BWP, filtration system planned

JB McGuire-Dix-Lakehurst, NJ: 2 on-base wells above EPA HA; FSI. Constructing new public water system. 6 off-base wells above EPA HA; 2 FSI, 3 BWP, 1 connected to municipal water; 5 to be connected

JBSA Randolph, TX: 5 residential wells above EPA HA, 1 of 5 wells abandoned; BWP; POETS installation in-progress at 3 wells

Little Rock AFB, AR: 4 off-base residential wells above EPA HA, 2 of the 4 on POETS, 1 BWP, 1 residence not currently occupied; sampling completed

Luke AFB, AZ: 3 off-base residential wells above EPA HA. 3 public utility wells and 2 distribution points above EPA HA; FSI and community of ~1,630 residences transitioned off BW . Coordinating hot-tap hookups for the 3 residential wells

McConnell AFB, KS: 3 residential wells above EPA HA; 1 location connected to municipal water supply; BWP; sampling completed

Mountain Home AFB, ID: 2 on-base drinking water wells above EPA HA; one well taken offline and replaced by another well below EPA HA; second well decommissioned and facility connected to base drinking water supply system below EPA HA. Off-base sampling completed

New Boston SFS, NH: 1 on-base drinking water well above EPA HA; FSI

Peterson AFB, CO: 39 municipal wells with FSI, 21 private wells with FSI (servicing 30 residences), 2 private wells with FSI at a mobile home park, 2 private wells connected to city and BWP at one 1 private well; sampling completed

Scott AFB, IL: 1 off-base residential well above EPA HA; FSI; sampling completed

Shaw AFB, SC: 3 public water systems, 3 business and 31 residential wells above EPA HA, BWP to 229 residences and 3 businesses; sampling ECD Mar ‘24

Tinker AFB, OK: 6 off-base private wells above EPA HA; BWP; sampling completed

Travis AFB, CA: Three off-base residential wells above EPA HA; FSI. System effluent samples are below EPA HA. BW discontinued in Dec ‘21. O&M sampling scheduled for Jan ‘22.

Wright-Patterson AFB, OH: 2 on-base wells above EPA HA, GAC system installed

BRAC Installations

Former Castle AFB, CA: 3 private wells above EPA HA, FSI at 3

Former K.I. Sawyer AFB, MI: 1 private well above EPA HA; FSI

Former March AFB, CA: 1 public well above EPA HA; treatment system on-line, cooperative agreement in place. 2 private wells above EPA HA; connected to public water supply

Current as of 28 February 2022

Former Mather AFB, CA: 2 public wells above EPA HA; FSI and operations and maintenance of system by purveyor for one well. Air Force refurbished existing alternate well for replacement of the other public well

Former Pease AFB, NH: 2 public wells above EPA HA; 1 shut off, 1 treatment system on line, cooperative agreement in place. 5 private wells above EPA HA, 2 connected to public water supply, 2 FSI, 1 BWP

Former Plattsburgh AFB, NY: 4 private wells above EPA HA; 3 FSI, 1 BWP

Former Reese AFB, TX: 249 private wells and 2 public wells above the EPA HA and/or Texas Protective Concentration Limits; 1 public well replaced by connection to City of Lubbock supply, 241 FSI, remaining BWP

Former Wurtsmith AFB, MI: 1 private well above EPA HA; connected to public water supply

ANG Installations

Barnes ANGB, MA: 2 municipal wells above EPA HA; treatment system online

Biddle ANGB (Formerly Horsham), PA: Under Administrative Order. 2 on-base drinking water wells above EPA HA; temporary carbon filtration installed and BWP. 63 off-base private wells and 5 municipal wells above EPA HA. Providing alternate water sources to surrounding townships while carbon filtration systems are constructed

Gabreski ANGB, NY: 2 municipal wells above EPA HA, FSI on both; all residential wells hooked up to municipal water

Martinsburg ANGB, WV: 1 municipal well above EPA HA. GAC system installed and functioning since December ‘17

Montana ANGB, MT: 1 drinking water well above EPA HA; BWP

Morris ANGB, AZ: 3 off-base residential wells above EPA HA; BWP to 2, 1 residence connected to municipal water

Otis ANGB (JB Cape Cod), MA: No residential wells above EPA HA, 115 municipal water connections (112 based on HA; 3 based on MA MCL). Wellhead treatment on 1 municipal well. Sampling 38 private wells; no ECD at this time due to ongoing RI. Based on MA MCL: 3 additional public water wells (all shut down) and 13 private wells impacted (BWP). 3 wellhead treatments and 8 new water connections planned

Toledo ANGB, OH: 1 off-base residential well above EPA HA; residence connected to municipal water supply; well closed

Non-AF led Drinking Water Responses

Barnes ANGB, MA: 3 residential wells above EPA HA; FSI by state

Harrisburg IAP, PA: Municipal supplier delivered water with elevated PFOS in 2014; the supplier responded to the problem and conducted periodic monitoring. The current wells and drinking water are below the EPA HA

Joe Foss Field, SD: 10 municipal wells above EPA HA; alternate water supply provided by other municipal wells

Luke AFB, AZ: 3 off-base utility wells above EPA HA; FSI

New Castle ANG, DE: 14 municipal wells above EPA HA; all have carbon treatment installed

Stewart ANGB, NY: City of Newburgh drinking water reservoir above EPA HA; alternate water provided through New York State aqueduct. State-funded public drinking water treatment system constructed for reservoir, but not operating as a drinking water source

Key

BWP = Bottled Water Provided
ECD = Estimated Completion Date
EPA HA = Environmental Protection Agency Health Advisory

FSI = Filtration System Installed
GAC = Granular Activated Carbon
MassDEP = Massachusetts Department of Environmental Protection

MCL = Maximum Contaminant Levels
POETS = Point of Entry Treatment System